What is claimed is:

1. An article for applying of a coupling agent to the surface of a tissue, the article comprising a backing and a layer of coupling agent on at least one major surface of the backing.

2. The article of claim 1, wherein the coupling agent is selected from the group consisting of mineral oil, silicon oil, dimethyl siloxane, fluorocarbons, and glycols.

3. The article of claim 1, wherein the backing comprises a non-permeable material.

4. The article of claim 1, wherein the thickness of the layer of coupling agent on the backing is less than about 100 μm.

5. The article of claim 1, wherein the thickness of the coupling agent on the backing is from about 7 μm to about 20 μm.

6. The article of claim 1, wherein the area of the backing is from about 10 cm^2 about 40 cm^2.

7. The article of claim 1, wherein the backing has an area greater than the area of the layer of coupling agent.

8. The article of claim 1, further including a substrate layer interposed between the backing layer and the layer of coupling agent.

9. The article of claim 8, wherein the substrate layer comprises a fibrous material.

10. The article of claim 8, wherein the substrate layer comprises a non-fibrous material.

11. A method for improving the precision of a non-invasive optical measurement, said method comprising the steps of:

(a) providing the article of claim 1;

(b) applying a specified amount of a coupling agent to the surface of a tissue or a body part;

(c) bringing an optical measuring device in contact with said tissue or said body part, wherein said coupling agents enhances optical and thermal coupling between said device and said tissue or said body part; and

(d) performing a non-invasive determination of the concentration of an analyte in said tissue or said body part.

12. The method of claim 11, wherein said optical measurement is one of diffuse reflectance measurements, localized reflectance measurements, time domain measurements, frequency domain measurement, photoacoustic measurements or optical coherence tomography measurements.

13. The method in claim 1, wherein said analyte is selected from the group consisting of glucose, hemoglobin, glycated hemoglobin, triglycerides, and cholesterol.